

★
ANNUAL CONVENTION ISSUE
★

THE CALIFORNIA VETERINARIAN



Arrowhead Springs Hotel

SAN BERNARDINO

CONVENTION HEADQUARTERS

JUNE 16, 17, 18, 1952



MAY-JUNE 1952

PUBLISHED BY CALIFORNIA STATE VETERINARY MEDICAL ASSOCIATION



DOCTOR, PLEASE!

Calo endeavors to safeguard its long and favorable relationship with the Veterinary Profession; treasuring many friendships that were born over a quarter of a century ago.

Calo neither manufactures nor recommends any type of remedy for pets, knowing that this field is well covered by trained Veterinary Specialists.

Calo does, however, continually strive to improve the content of its foods and asks that you examine and compare them for honest-to-goodness quality that you CAN SAFELY prescribe.

Sincerely,

Calo Dog Food Co., Inc.



The 2 familiar packages shown above are distributed to the nation by thousands of grocers and pet food stores, coast-to-coast. Calo is a quality product, as its carefully compounded formula will reveal. Calo aspires to be a product worthy of your consideration. Special literature is available upon request.

CALO

DOG AND CAT FOOD

Calo Dog Food Co., Inc.

1530 E. 12th St., Oakland 6, California • Factories: Oakland, California • West Hanover Massachusetts • Sales Offices: Oakland • San Francisco • Los Angeles • New York

CALO FORMULA

Activated Animal Sterols, Fish Liver Oils, and Wheat Germ enrich this product with vitamins A-D and members of the B group

Guaranteed Analysis by Method Association of Official Agricultural Chemists

DRY MATTER	• A MINIMUM 27%
PROTEIN	• A MINIMUM 10%
FAT	• A MINIMUM 2%
ASH	• A MAXIMUM 3%
CALCIUM	• A MAXIMUM 4.5%
PHOSPHORUS	• A MINIMUM 0.25%
SALT	• A MINIMUM 0.30%
CRUDE FIBRE	• A MAXIMUM 1%
MOISTURE	• A MAXIMUM 73%





norden's PARACIDE capsules



For large roundworms, hookworms and tapeworms in dogs and cats. Also recommended for whipworms in cats. Liquid diet (milk preferred) 24 hours before dosing. No follow-up laxative needed.



Size No. $2\frac{1}{2}$ —Dogs, cats, one capsule for each $2\frac{1}{2}$ lb. body weight.

No. $2\frac{1}{2}$ —50\$1.50



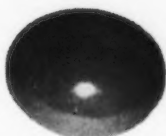
Size No. 5—Dogs, cats, one capsule for each 5 lb. body weight.

No. 5—50\$2.85



Size No. 10—Dogs, one capsule for each 10 lb. body weight.

No. 10—50\$5.50



Size No. 25—Dogs, one capsule for each 25 lb. body weight.

No. 25—25\$5.00



NORDEN LABORATORIES

LINCOLN

NEBRASKA

Rapidly

Effective



**IN
SURFACE WOUNDS
ULCERS,
SUPPURATING
LESIONS**

**VEMORSUL OINTMENT
contains**

UREA for chemical debridement of wounds.

COD LIVER OIL concentrate (containing vitamins A and D) to stimulate granulation and healing.

SULFANILAMIDE AND SULFATHIAZOLE— effective against a wide range of pus-forming micro-organisms.

INDICATED in a wide variety of wounds, either clean or infected. Especially valuable in draining ulcers, ear infection, and ruptured abscesses.

SUPPLIED in 1/2-ounce tubes with special tip, 2 ounce tubes, and in 5 pound jars.

S.E. Massengill BRISTOL, TENN.
Veterinary Division

**54 Years of Service to the
Veterinary Profession**

**a rational
formula**

Contains:

Sulfathiazole.....	3 %
Sulfanilamide.....	7 %
Urea.....	10%

Fish liver oil concentrate in a suitable base.

Vemorsul
OINTMENT

A New, Improved Insufflator!

BOVOC[®]

Pink Eye Powder



for easy and effective treatment of pink eye, a few puffs daily for a few days is usually sufficient.

Improved spray head directs an accurate, even flow. The new insufflator is practically indestructible—will stand 10,000 squeezes without breaking.

Detachable label for convenient dispensing.

An antibacterial combination to combat the various organisms associated with conjunctivitis-keratitis in cattle and purulent conjunctivitis in dogs:

Topical antibiotic
Sulfonamides

Tyrothricin	0.05%
Sulfanilamide	78.95%
Sulfathiazole	20.0%
Phenacaine HCl	1.0%

Local anesthetic

No. 2121 — BOVOC[®] Pink Eye Powder, supplied in Improved Plastic Insufflator containing 10 Gm.

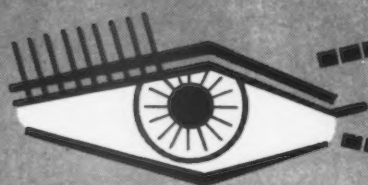


VETERINARY DIVISION

SHARP & DOHME

PHILADELPHIA 1, PA.

BRANCHES: Atlanta, Baltimore, New York, Denver, Memphis, Los Angeles, Columbus, Boston, Chicago, Portland, San Francisco, Kansas City, Dallas, St. Louis, New Orleans, Minneapolis



6,000,000
Farm Paper Readers

3,000,000
Newspaper Readers

1,600,000
Movie Audience

400
Radio Stations



People are Reading, Hearing About YOU

All these millions of readers and listeners are being given a new appreciation of the veterinarian and his work . . . through the nationwide campaign of Associated Serum Producers. Through newspapers, farm magazines, radio, movies, this campaign is at work for YOU 365 days in the year. Remember these companies, who make this campaign possible.

The Royal Serum Co.
Sioux City Serum Co.
Sioux Falls Serum Co.
The Southwestern Serum Co.
The United Serum Co.
Allied Laboratories, Inc.
Blue Cross Serum Co.
The Columbus Serum Co.
Corn Belt Laboratories, Inc.

The Corn States Serum Co.
Fort Dodge Laboratories, Inc.
Grain Belt Supply Co.
The Gregory Laboratory, Inc.
Jensen-Salsbery Laboratories, Inc.
Liberty Laboratories
Missouri Valley Serum Co.
The National Laboratories Corp.
Norden Laboratories
Pitman-Moore Co.

● ASSOCIATED SERUM PRODUCERS, INC.

SPONSORS OF AMERICAN FOUNDATION FOR ANIMAL HEALTH

Associated
Serum
Producers

Benadryl HYDROCHLORIDE

POSSESSES BOTH ANTIALLERGIC AND ANTISPASMODIC ACTIVITY

Animals suffering from common skin irritations, dermatoses and a variety of allergic conditions find welcome relief through the effective treatment afforded by Benadryl.

Benadryl Hydrochloride (diphenhydramine hydrochloride, Parke-Davis) is available in a variety of forms including:

Kapseals®, 50 mg. each; Capsules, 25 mg. each; Elixir, 10 mg. per teaspoonful; Steri-Vials®, 10 mg. per cc. for intravenous or intramuscular administration; and a cream containing 2% Benadryl Hydrochloride.



**FOR THE RELIEF OF
MANY SUMMER
DISCOMFORTS**

Caladryl CALAMINE-TYPE LOTION WITH BENADRYL

TRADE MARK

Caladryl is a smooth, creamy lotion containing 1% Benadryl Hydrochloride in a specially prepared calamine base. It provides effective antihistaminic and antipruritic action. It relieves itching associated with urticaria, contact dermatitis, insect bites, and minor skin affections.

Caladryl is pleasant to use and is supplied in 6-oz. bottles for easy application.



professional literature available on request

PARKE, DAVIS & COMPANY
DETROIT 32, MICHIGAN





PROTECT
your dog patients with

NEW
canine
distemper
vaccine
FROMM

modified live
virus of chick embryo origin

"Viablized"

BETTER PROTECTION
against distemper in your
dog patients is obtained with
Canine Distemper Vaccine
"Viablized" FROMM. More
rapid — more enduring —
causes no post-vaccination
reactions. Higher in potency,
too, and this potency is
MAINTAINED for at least a
year by a patented process
developed by FROMM
LABORATORIES of sealing
after drying.
Research also shows it offers
immunization possibilities
against "hard pad" disease
and demyelinating
encephalitis.

FROMM
LABORATORIES,
INC.

Grafton, Wisconsin, U.S.A.

distributed by
**WINTHROP-
STEARNS, Inc.**

1450 Broadway, New York 18, New York

Sold only to Qualified
Graduate Veterinarians

Available in one dose
and 10 dose packages



millions have
gone to
market...
protected
with B.T.V.

Each year, more and more veterinarians have made B.T.V. a "must" in their programs of hog cholera prevention because ready-to-use B.T.V.—

Builds strong, dependable immunity without the use of serum.

Cannot contaminate premises or spread infection to non-immune hogs. B.T.V. contains no virulent virus.

Won't throw pigs off feed. B.T.V. eliminates virus reactions and "virus setbacks"; is safe even in problem herds.

If you aren't already using B.T.V., write today for detailed information on the prevention of hog cholera with this time-proven vaccine. Or better yet, order B.T.V. from your nearest Cutter Veterinary Supplier.



Sold to "VETERINARIANS ONLY"—No Exceptions.

B.T.V./CUTTER

CUTTER LABORATORIES, 5020 NORTHWEST HIGHWAY, CHICAGO, ILLINOIS

a simple, safe, effective way to
Accelerate Healing

in wounds (especially slow healing)

burns, ulcers (external)

sore, cracked teats

Soothing, protective Desitin Ointment
 eases pain, itch, and irritation . . .
 eliminates necrotic debris . . . and speeds
 smooth epithelization
 of surface tissue injuries in . . .

Desitin[®]
 OINTMENT

THE
 EXTERNAL
 COD LIVER OIL
 THERAPY

HORSES



PIGS

SHEEP

CATTLE



DOGS



[®] *Desitin* OINTMENT is a stable,
 non-irritant blend of crude cod liver oil
 (with unsaturated fatty acids and vitamins A and D
 in proper ratio for maximum efficacy),
 zinc oxide, talcum, petrolatum,
 and lanolin. Jars of 7 lb.; tubes of
 1 oz., 2 oz., 4 oz.

Send for professional **SAMPLES**

Write Veterinary Dept.

Desitin CHEMICAL COMPANY

70 Ship Street, Providence 2, R. I.





*It's new! It's potent! It's prompt-acting!
also economical*

ECP*

ECP, a cyclopentylpropionate ester of "alpha" estradiol, is a new potent estrogen with a variety of uses in veterinary medicine. ECP may be used to correct these conditions:

- ★ *Anestrus in female animals*
- ★ *Retained corpus luteum in dairy cattle*
- ★ *Pyometra of cows and bitches*
- ★ *Retained placentas and mummified fetuses*
- ★ *"False pregnancy" in bitches*
- ★ *Prostatic hypertrophy in male dogs*

ECP is supplied in 10 cc. size vials, containing 2 mg. per cc.

Write for leaflet describing veterinary indications and dosage schedule.

*Trademark, Reg. U. S. Pat. Off.



Department of Veterinary Medicine

THE UPJOHN COMPANY, KALAMAZOO, MICHIGAN

ATLANTA • BOSTON • CHICAGO • CLEVELAND • DALLAS • KALAMAZOO
KANSAS CITY • LOS ANGELES • MEMPHIS • MINNEAPOLIS • NEW YORK
PHILADELPHIA • PORTLAND • SAN FRANCISCO • TORONTO, CANADA

Central City Chemical Consolidated

Sales to Graduates Only

Prompt Service from San Francisco

Haver-Glover Laboratories

Winthrop-Stearns Inc.

Chas. Pfizer (Terramycin)
Cutter Laboratories
Sharp & Dohme
Schenley Laboratories
Furacin Products
National Elect. Inst.

Corn States Serum Co.

Lederle Laboratories
Abbott Laboratories
E. R. Squibb & Sons
Goshen Laboratories
Cameron Equipment
Davis & Geck

Ashe Lockhart Inc.



617 Howard St.



Sutter 1-2644



San Francisco 5

CLIP DOGS REGULARLY WITH

Sunbeam **STEWART** ELECTRIC **CLIPMASTER**

Preferred by Veterinarians everywhere for its convenient size, ease of handling and lasting durability.

Keep dogs clipped the year 'round for healthier, cleaner pets. Sunbeam Stewart Clipmaster gives neat, professional results. Easy-to-use. Balanced for convenient clipping in all positions. Patented "friction-free" tension control assures perfect tension, easy adjustment. Blades stay sharper, last longer. Clipmaster also recommended for cows, horses, mules, etc. Shipped with set of blades. \$38.25.

Sunbeam CORPORATION

(formerly Chicago Flexible Shaft Co.)

5600 W. Roosevelt Road, Dept. 192, Chicago 50, Illinois



Clipmaster's powerful, air-cooled motor is inside the easy-grip handle. Special bottom blades available for all breeds of dogs.

THE CALIFORNIA VETERINARIAN

MAY-JUNE, 1952

Contents

Prophylaxis, Diagnosis and Therapy of Rumen Dysfunction, W. D. Pounden	14-17	National Scientific Register to Begin Survey of Veterinarians	28
Regulations Adopted by State Board Regarding Laboratory Animals	17	Equitable Compensation for Veterinarians	29
CSVMA Women's Auxiliary June Meeting Program	18	Partnership Dissolved	29
AVMA Annual Meeting, Atlantic City, N. J., June 23-26, 1952	19	Foreign Abstract	29
June Convention Program	20-21	State Rabies Advisory Council Proposes State Legislation	29
Commercial Exhibitors June Convention	22	Correction of Acute Primary Glaucoma in the Dog by Iridencleisis, John T. Turver	30-31
June Convention Speakers	23	Livestock Diseases Reported, J. E. Stuart	32
Picture of Members of the Department of Veterinary Science	24	Progress in Brucellosis Control, J. E. Stuart	32
Members of the Department of Veterinary Science	25	Applicants	32
Picture Graduating Class, School of Veterinary Medicine	26	Directory and Report of Board of Examiners in Veterinary Medicine	33
Many Reach Cherished Goals at Davis, Donald E. Jasper	27-28	Information Bulletin	33
		State Board Examination	33
		Opportunities	33
		Dr. R. E. Duckworth Reports on Canada Aftosa Situation	33

Index to Advertisers

Ashe Lockhart, Inc.	36	Lederle Laboratories	37
Associated Serum Producers	6	S. E. Massengill Company	4
Calo Dog Food	2	National Casualty Company	34
Central City Chemical Consolidated	12	Norden Laboratories	3
Charles Pfizer & Co., Inc.	35	Parke, Davis & Company	7
Cutter Laboratories	9	Pitman-Moore Company	39
Desitin Chemical Company	10	Sharp & Dohme	5
Fromm Laboratories, Inc.	8	Sunbeam Corporation	12
Haver-Glover Laboratories	38	Upjohn Company	11
Jensen-Salsbery Laboratories, Inc.	Back Cover		

Officers

C. E. WICKTOR	President	A. R. INMAN	First Vice-President
OSCAR J. KRON	Treasurer	PAUL D. DELAY	Second Vice-President
CHARLES S. TRAVERS	Executive Secretary	W. J. ZONTINE	Third Vice-President
C. EDWARD TAYLOR	Sergeant-at-Arms		

Executive Committee

A. R. INMAN, Chairman

C. E. WICKTOR	FLOYD H. WHITE	OSCAR J. KRON	PAUL D. DELAY
W. J. ZONTINE	A. M. MCCAPES		

Board of Governors

C. E. WICKTOR, President

FLOYD H. WHITE, Past President	A. R. INMAN, First Vice-President
--------------------------------	-----------------------------------

Editorial Staff

CHARLES S. TRAVERS, Managing Editor

JOHN F. CHRISTENSEN	PAUL D. DELAY	E. C. BAXTER	CYRIL J. PADFIELD	DON BARR
---------------------	---------------	--------------	-------------------	----------

Associate Editors

Research	Small Animals	Animal Sciences
H. S. CAMERON	E. C. JONES	GEORGE HART, DONALD JASPER
D. C. LINDLEY, O. W. SCHALM	G. M. SIMMONS	A. S. ROSENWALD
Public Health	Foreign Reviews	Large Animals
F. P. WILCOX, BEN DEAN	S. Z. ZAKS	FRED B. PULLING, ROBERT ORMSBEE
C. E. WICKTOR, A. K. CARR		V. C. BUNKER

Volume 5

Number 5

Published Bi-Monthly by the California State Veterinary Medical Association, 3004 16th Street, San Francisco 3, California. Devoted to promote Veterinary Science, to increase the esteem of the general public for the veterinarian, to protect his rights and privileges and to elevate the standard of the profession generally in scientific intercourse. Address all communications to The California State Veterinary Medical Association, Charles S. Travers, Executive Secretary. Please notify us immediately of incorrect address or change of address.

Unsolicited manuscripts are at sender's risk, and when received will not be returned unless accompanied by return postage. The Association is not responsible for views of contributors and we reserve the right to edit and condense articles. Advertising rates will be furnished upon request.

(Copyright, 1952, by California State Veterinary Medical Assn.—Reproduction Prohibited Without Permission.)

Prophylaxis, Diagnosis and Therapy of Rumen Dysfunction

By W. D. POUNDEN, D.V.M., Ph.D.

Ohio Agricultural Experiment Station, Wooster, Ohio

The Rumen at Work

The functioning of the ruminant digestive tract is more complex than that of animals with simple stomachs and the specific requirements for proper function and adequate health more difficult to determine, and much is still unknown. A discussion of pertinent details of rumen function and allied digestive tract activities as far as we know them provides a basis for approaching some of the problems of dysfunction of the ruminant gastrointestinal apparatus.

Schalk and Amadon and others have provided us with basic knowledge of the anatomy, the mechanics and the muscular activity of the fermentation vat formed by the rumen and reticulum. The fairly regular manner in which the ingesta and liquids are moved within the cavity by muscular contractions, and the role of microorganisms in the breakdown of fibrous feeds in the rumen are common knowledge. From the digestion of the cellulose, acetic acid and other volatile fatty acids are formed which upon absorption provide important sources of nutrients for the animal, including the precursors of butterfat. The microorganisms in the rumen are responsible among other things for the manufacture of several amino acids, proteins, and vitamins, including a majority of those in the B group. Thus, it is easy to see why proper rumen function means so much to the health of cattle.

Certain characteristic microorganisms found in rumen contents of healthy dairy cows are used as indicators of the presence or absence of normal flora and fauna in calves. Addition of a little grain to a roughage diet of fairly good quality alfalfa and grass hay improved the already fairly satisfactory balance of the organisms. Ratios approximating twice as much good quality hay as the grain ingested gave very desirable balances and concentrations of microorganisms. When the quantities of grain eaten exceeded the hay, conditions in the rumen became unsatisfactory for the indicator microorganisms and few could be seen or they disappeared altogether.

There is fairly general agreement that many rumen microorganisms are specific for the rumen. Support for this opinion is provided by the fact that isolation of animals prevents establishment of the complete microflora and microfauna, and by the delay experienced in reestablishment of certain microorganisms following treatment that removes them. Becker and his coworkers noted that chemical treatment coupled with starvation and isolation prevented the establishment of protozoa in sheep. Excessive grain feeding resulted in

the disappearance of various characteristic microorganisms from the rumens of calves and they did not reappear while the calves were kept segregated. Thus, from a practical standpoint, the problem of variations due to microorganisms is one of availability for animals, either from original inoculations early in life or following loss of their cultures for one reason or another.

Rations composed of half as much simple grain mixture as the good quality hay eaten supported a nicely balanced microorganism population, as mentioned above, and resulted in satisfactory development of calves which received rumen inoculations. Calves fed similar rations but raised in segregation to prevent access to characteristic varieties of microorganisms failed to develop correctly, showing rough hair coats and pot-bellied condition. When characteristic microflora were provided but the protozoa kept away normal development followed, thus supporting the opinion held generally that protozoa are not essential. In the absence of characteristic varieties, substitute microorganisms become established that evidently are less adequately equipped to do all jobs demanded of rumen function.

Milk is considered nature's substitute for rumen function in calves. However, the results of a limited experiment using segregated and uninoculated calves receiving rations of hay with but limited grain indicated that milk feeding continued up to four and one-half months of age would not completely substitute for proper rumen function. A pot-bellied condition and rough hair coats developed in these calves, in sharp contrast to the smooth coats of the rumen-inoculated control group on similar rations.

Other factors play their roles in maintaining conditions favorable for microorganism activity. The reticulum may be considered the "starter" tank, the small pockets in the honeycomb structure of its walls providing a favorable environment for the development of the anaerobic microorganisms necessary for inoculating the main fermentation vat, the rumen. Absorption of organic acids by the rumen wall, and the alkalizing effects of saliva are also important.

Faulty rumen operation in cattle of any age may result from sudden changes in the composition of the feed, insufficient feed, improper types or unsatisfactory combination of feeds, and drugs and poisons, since these agencies either reduce the number of microorganisms or render them incapable of functioning correctly. Abnormalities such as faulty prehension, improper mastication, insufficient

moisture resulting from inadequate water intake or sickness and dehydration, faulty buffering capacity from insufficient salivation, or poor absorption of acids may limit the efficiency of the bacterial action. Atony of the rumen musculature and reticular adhesions and abscesses would be expected to result in faulty inoculation and mixing of ingesta and delay in moving it along.

A System of Raising Calves Based on Early Rumen Function

In the course of studies on sickness of various types in our experimental calves it became evident that rumen function, as we know it in dairy cows, was completely absent in calves as old as three months. Not only did the ingesta lack the appearance, the odor, or the pH of that in our normally fed cows, but many of the microorganisms usually present were absent. These studies demonstrated that in order for normal rumen function to develop, there was need for both the proper microorganisms and feeds or combinations of feeds that were satisfactory for their establishment.

During recent years at the Ohio Agricultural Experiment Station we have endeavored to find ways of obtaining for calves some of their inherent rights in the form of the health-giving properties conferred on cattle by good rumen function. The calf raising system that has come out of this has proved quite successful when judged on the basis of health, growth and cost. Briefly, it consists of the use of limited quantities of milk, with liberal feeding right from birth of good quality alfalfa hay, preferably with a little grass hay also present; weekly rumen inoculations with cud materials during the first six weeks of life to insure adequate seeding of the developing rumens with the right microorganisms at an early age; and the withholding of grain entirely until six weeks of age, or feeding it in limited quantities in the form of a simple low-protein mixture and never in quantities in excess of half the hay being eaten. If grain is to be fed during the first few weeks it can be mixed with two or more parts of coarsely ground hay. This mixture is fed in addition to unground hay to Holstein calves during the first five weeks of age and to Jerseys for 8 weeks. It is then replaced with unground hay and one-fourth pound of grain per day, and the grain gradually increased as hay consumption climbs so that by six months of age the quantity per day of grain being allowed is approximately five pounds to Holsteins and four pounds to Jerseys.

It has been gratifying to find that this early roughage feeding schedule with cud inoculations eliminated for practical purposes instances of curdled milk or hair and fiber balls in the rumens of our calves, and reduced the incidence of diarrheas and toxemias. It has been suggested that milk or curd in rumens is sometimes the result of calves drinking from open buckets on the ground level, and

that protection is afforded by nipple pails. As open pail feeding has been our practice all along, it would appear that ingestion of roughage is a more important protective measure, reducing the ingestion of straw or shavings used as bedding, and hair from the animal's body.

Calves raised in the manner described often have rumen, reticulum and omasum capacity equivalent on a weight basis to mature stock by two months of age. They are able to obtain the health giving products resulting from proper mature type rumen function, including vitamins and high quality proteins produced by the microorganisms. Average growth rates at least equal to Ragsdale standards have been the rule, and many individuals have surpassed them. Animals raised on this system that have come into production have further demonstrated its soundness. The improved health that has followed the use of these methods in herds where pneumonia, diarrhea and coccidiosis were problems emphasizes the influence of management on health.

Diagnosis and Therapy of Rumen Dysfunction

The procedure of cud inoculation was used for many years before it was known how it could be of value. For instance, Hoflund in Sweden reported that it was the practice 100 years ago to administer cuds from healthy stock to animals which had become sick and debilitated from living in areas where forage of a deficient nature alone was available.

A simple yet adequate way of providing young calves with seedings of rumen microorganisms is to collect a piece of cud from a healthy cow and to pass this into the back of the mouth of the calf so that the animal will swallow it and the microorganisms contained therein. To obtain rumen samples for examination and for larger quantities for rumen inoculation or transfusion use may be made of stomach tubes. Rubber tubing approximately 0.5 inch in diameter works well in calves, while for older animals tubes varying in size from that of a garden hose to the large Colorado tube can be used. To encourage the rumen contents to be forced up and out through the tube after it is passed into the rumen a back and forth motion is applied, forcing rumen contents into the tube and stimulating rumen and abdominal wall contractions which further propel the materials. The head of the animal should be held as low as possible to permit drainage of liquids that pass up on the outside of the tube, and the outside end of the tube, held low to assist in draining out the material.

In calves the presence of satisfactory numbers of mixed species of protozoa in rumen samples when viewed under a microscope generally can be counted on to indicate that adequate exposure to rumen microorganisms has occurred. Their absence, coupled with rough hair coats and pot bellies, yet the presence of feeds suitable for proper rumen function,

suggest the need for rumen inoculations without other treatment. Their absence in calves does not mean exposure has been inadequate when abnormal constituents are encountered such as watery liquids with bits of curd, a frothy mass of corn and cob meal, or a pasty sour smelling mixture. Under these latter conditions, microorganisms characteristically present in healthy rumens are unlikely to develop even if administered in quantity, and rumen lavage is indicated prior to rumen inoculations.

Examinations of rumen contents have their place as diagnostic aids in older stock. Calves which are eating nothing in the way of dry feeds have considerable liquid in their rumens, and there is good reason to believe this liquid comes from the rumen walls. Apparently, the same occurs in mature animals which are not eating but whose rumens have continued to function sufficiently well that the feeds previously eaten have been passed along. Passage of the tube stimulates a gushing out of the liquids both through and around the tube. Animals suffering from partial inappetence and atony, as in animals with dehydration accompanying fevers of comparatively sudden onset, show relatively dry ingesta and the absence of free liquids. Visual examination of the contents help reveal instances where excessive grain or abnormal materials have been eaten.

Rumen lavage is a useful technique in calves when the rumen sample shows abnormal contents, such as watery liquids with bits of curd, a frothy mass of corn and cob meal, or a pasty sour smelling mixture. This is done by pumping warm water into the rumen and repeatedly siphoning it off through the tube. Removal of most of the toxic substances associated with the liquids and grain is a sensible approach in these cases.

In older cattle, rumen lavage is of value when abnormal contents which need removing are present in rumens. Fortunately, an adequate job can be accomplished without removal of all the fibrous material once a goodly quantity of the toxic substances associated with the liquids and grain is removed. The largest possible tube that can be passed safely can be used to advantage. The technique of using the Colorado tube has been described and demonstrated adequately many times by Dr. H. E. Kingman of the Wyoming Hereford Ranch in Cheyenne, Wyoming, and others at the Colorado A and M Veterinary School. Warm water is pumped or funnelled into the rumen and repeatedly siphoned off. In removing rather pasty masses of materials the tube is manipulated back and forth at a fairly rapid rate about a foot or more in distance after the rumen has been well filled with water.

The findings on examination of rumen contents can be used in outlining the treatment. For example, in a nine months' old Hereford heifer sick for four days and treated with

various stimulants, ruminatorics and supportive treatments, a mass of abnormal ingesta, drugs, and liquids was observed, indicating rumen lavage as part of the treatment. After lavage, the animal was given good quality hay without any grain and several fresh cuds from cows in the herd were pushed into the back of her mouth. The cud inoculation was repeated next day, at which time the animal was eating quite freely of the hay and recovering rapidly.

An alternative method for providing rumen inoculation would have been to obtain rumen contents from another animal by means of a stomach tube, rumen fistula, or butchered subject and to administer it by tube or by drenching. This method has the advantage, besides providing a large inoculum which is essential in full grown stock after lavage, of also providing a direct source of sustenance. This is of more importance than the microorganism inoculation value in many instances in which the animal is sick and weak from causes which are not of rumen origin. Inappetence with resultant rumen dysfunction may of course be present. Rumen contents may be relatively dry when dehydration is also present and in this case water in addition to that in the rumen contents is indicated unless large quantities of rumen contents are given.

If rumen lavage has been performed to remove abnormal materials, a sufficiently large inoculum should be given to take care of the quantity of roughage eaten, or repeat the inoculation within a few hours. It is advisable to restrict the quantity of hay available during the next 24 hours after treatment to a normal feeding. To give directions to an owner to do this when he has seen his animal eat nothing for days sounds silly to him, but this will avoid the problem of ingestion of more hay than the inoculum given can take care of satisfactorily.

When the condition is diagnosed as acute traumatic gastritis it is inadvisable to carry out rumen lavage because of the added aggravation to the lesions. The need for this would not be indicated by examination of the rumen contents, should this be done, because they would be of relatively normal appearance. The removal by rumenotomy of part of the ingesta in these cases when the rumen is rather full and marked stasis exists has been of considerable help in our limited experience in restoring the animals to comparatively normal function even though the offending foreign body was not always recovered, having passed on through the reticular wall. The removal of the contents appears to somewhat relieve the pain, to permit earlier reestablishment of motility, and eliminates the risk of the mass of ingesta becoming excessively abnormal and toxic for the animal.

A number of factors should be considered in deciding what the source should be of the

rumen contents to be used for rumen inoculation or transfusion. The quantity needed and the risk of spreading disease through use of materials from packing houses and other herds are among these. Where calves are concerned which require but small repeated inoculations, cuds from animals in the same herd are adequate in quantity and relatively safe to use. At the other extreme are the large quantities involving gallons that have been recommended by some which would be almost impossible to obtain except from packing house subjects or from animals with rumen fistulas. Experience has raised the question as to whether use of these massive quantities is fully justified as often as they are suggested. It is possible that they are being used in some instances where rumen lavage for removal of abnormal constituents should precede the transfusion. Perhaps in the absence of lavage excessive and repeated quantities are needed to adequately dilute the abnormal contents present.

The quantity of inoculum required to adequately take care of reasonable quantities of fresh feed eaten after lavage should be readily supplied by about a quart of fresh rumen contents. This is especially true when a repeat inoculation is given next day. This quantity, or more, generally can be obtained with comparative ease from an 8 to 12 months' old heifer that is eating a normal ration as far as the proportion of hay is concerned. This is the donor of choice because it is easier to restrain than a mature animal and a speculum frequently is unnecessary. The value of an inoculation with fresh warm material removes the risk of loss of many of the more valuable microorganisms through chilling or other exposure. It may prove to be a profitable venture for many veterinarians to keep on hand an animal with a rumen fistula in order to provide rumen transfusions as needed in much the same manner that dogs are kept in some hospitals as blood donors.

Space does not permit full listing of the varied types of cases that are encountered or the specific means of coping with each. However, it is hoped that this attempt at discussing various basic factors as adequately as possible will help veterinarians in making diagnoses, in providing more rational treatments, and stimulate the development of ways and means of improving our present knowledge and methods.

Bibliography

- Baker, F., Harriss, S. T., Philipson, A. T., Kon, S. K., and Porter, J. W. G.: "The Role of the Microflora of the Alimentary Tract of Herbivora with Special Reference to Ruminants." *Nutr. Abs. Rev.*, 17 (1947), pp. 1-37.
- Becker, E. R., and Everett, R. C.: "Comparative Growths of Normal and Infusoria-free Lambs." *Amer. Jour. Hyg.*, 11 (1930), pp. 362-370.
- Cochrane, E. R.: "Grass and the Dairy Cow." *Agriculture (Jour. Min. Agr. Eng.)*, 55 (May, 1948), pp. 47-55.
- Conrad, H. R., Hibbs, J. W., Pounden, W. D., and Sutton, T. S.: "The Effect of Rumen Inoculations on the Digestibility of Roughages in Young Dairy Calves." *Jour. Dairy Sci.*, 33, No. 8 (1950), pp. 585-592.

Hibbs, J. W., and Pounden, W. D.: "Raising Calves as Ruminants." *Farm and Home Research*, 35 (1950), pp. 30-31, and *Hoards Dairyman*, Feb. 10, 1952.

Kingman, H. E.: "Gastric Lavage in Cows." *Jen-Sal Jour.*, May, 1931, pp. 14-15.

Lames, H. S.: "Digestive Juices Used for Anorexia in Cattle." *Jour. Amer. Vet. Med. Assoc.*, 116 (March, 1950), pp. 224-225.

Mead, S. W., and Goss, H.: "Some Results of Eight Years of Investigation Concerning the Role of Roughage in the Diet of Ruminants." *Jour. Dairy Sci.*, 19 (1936), pp. 465-466.

Pounden, W. D.: "Some Factors Affecting Rumen Function in Young Dairy Calves and Their Influence as Reflected in the Health of the Animals." Thesis, Ohio State University, 1949.

Pounden, W. D. and Hibbs, J. W.: "The Influence of the Ration and Rumen Inoculation on the Establishment of Certain Microorganisms in the Rums of Young Calves." *Jour. Dairy Sci.*, 31, No. 12 (1948), pp. 1041-1050.

Pounden, W. D., and Hibbs, J. W.: "The Influence of the Ratio of Grain to Hay in the Ration of Dairy Calves on Certain Rumen Microorganisms." *Jour. Dairy Sci.*, 31, No. 12 (1948), pp. 1051-1054.

Pounden, W. D. and Hibbs, J. W.: "Rumen Inoculations in Young Calves." *Jour. Amer. Vet. Med. Assoc.*, 114, No. 862 (Jan. 1949), pp. 33-35.

Pounden, W. D., and Hibbs, J. W.: "The Development of Calves Raised without Protozoa and Certain Other Characteristic Rumen Microorganisms." *Jour. Dairy Sci.*, 33, No. 9 (1950), pp. 639-644.

Pounden, W. D., Hibbs, J. W., and Cole, C. R.: "Observations on the Relation of Diet and Diarrhea in Young Dairy Calves." *Jour. Amer. Vet. Med. Assoc.*, 118 (June, 1951), pp. 400-403.

Schalk, A. F. and Amadon, R. S.: "The Physiology of the Ruminant Stomach (Bovine)." *N. Dak. Agr. Expt. Sta. Bul.* 216 (Feb., 1928).

Regulations Adopted by State Board Regarding Laboratory Animals

The State Board of Public Health has adopted regulations giving detailed application to the law relating to laboratory animals which was adopted by the 1951 Legislature.

The new regulations, to be administered by the State Department of Public Health, are California's first uniform code governing the care of animals used in laboratory research. Among salient provisions are the following:

1. Any person using animals for the diagnosis of disease, for educational purposes, or for research, must have the approval of the department.
2. Such approval may be denied any person who fails to see that animals are kindly treated, are well fed and that their quarters are clean, properly lighted and maintained at proper temperature. Humane use of the animal is also mandatory.
3. Those who handle the animals shall be chosen for their dependability and liking for animals.
4. At the end of experimentation, which with few exceptions shall be upon an anesthetized animal, the animal must be painlessly destroyed or given care equal to that given human beings after an operation.
5. Monthly reports shall be required on the total number of animals kept in any laboratory and on the use and disposition of the animals.

The State Department of Public Health is now processing applications, as required by the new law, which are being received from laboratories which keep animals for the purposes mentioned above.

CSVMA Women's Auxiliary June Meeting Program

The Women's Auxiliary to the CSVMA extends a most cordial greeting to the wives of veterinarians in California and urges them to participate in the annual meeting of the organization in San Bernardino.



MRS. H. I. OTT

President Women's Auxiliary to the CSVMA

The committee on local arrangements has planned a splendid program and this year's meeting at Arrowhead Springs Hotel, with its picturesque setting, lends itself perfectly to the type of entertainment arranged for your enjoyment.

PROGRAM

Sunday, June 15

5 to 6:30 p.m.—Cocktail party in the Wanhi Room.

Monday June 16

9:00 a.m.—Registration.

Afternoon

Swimming, riding, bridge by the pool.

Evening

6 to 7 p.m.—Aquacade and cocktails followed by buffet dinner at 7 p.m.

8:15—Bridge, canasta, kibitzing. Prizes and door prizes furnished through the courtesy of the drug houses and the CSVMA secretary.

Tuesday, June 17

9:30 to 11 a.m.—Guided tours through underground steam caves at 30-minute intervals.

12:30—Luncheon and fashion show on terrace overlooking San Bernardino Valley.

7:30 p.m.—Banquet and dancing, Candle Light Room.

Wednesday, June 18

10:30—Coffee served at the pool, swimming optional.

Student Loan Fund

The Women's Auxiliary to the California State Veterinary Medical Association has established a revolving fund from which loans will be available to the senior students of the School of Veterinary Medicine at Davis, California.

The loan committee of the Auxiliary will set the amount allotted for each individual loan and the number of loans available will depend upon the funds set aside for this purpose.

Ladies, if you are eligible for membership in the Auxiliary, you are urged to join by sending your check for \$1.00 to the secretary, Mrs. Charles Stafford, P. O. Box R2, Novato, California. Your dollar will cover your dues from July 1, 1952, to June 30, 1953, and this dollar will help a worthy student.

For Your Pleasure

What will it be? A swim before breakfast, a chance to work on your suntan, golf, bridge, riding? You'll have them all and more at the CSVMA convention at Arrowhead Springs Hotel. Pack a few informal clothes, cottons, sun dress, bathing suit, cocktail dress and don't forget a wrap for evening and your sun glasses, and join your husband at the June meeting. In addition to the many activities always available at this world famous spa, the local activities committee has also included a few events in which you are urged to take part.

Monday at 5:30 in the late afternoon you and your husband are invited to join the others at the emerald swimming pool for a social hour. During this time the precision swimming team of the hotel will present a program which will include swimming and diving. At the conclusion of the program, the hotel has made arrangements to serve dinner at the pool for those who would like to take advantage of dining in the beautiful setting. At 8:15 all ladies are invited to meet in the card room for bridge and canasta. Non-card players are urged to come also and meet other veterinary wives, and take part in the drawings for the many door prizes offered by the drug houses.

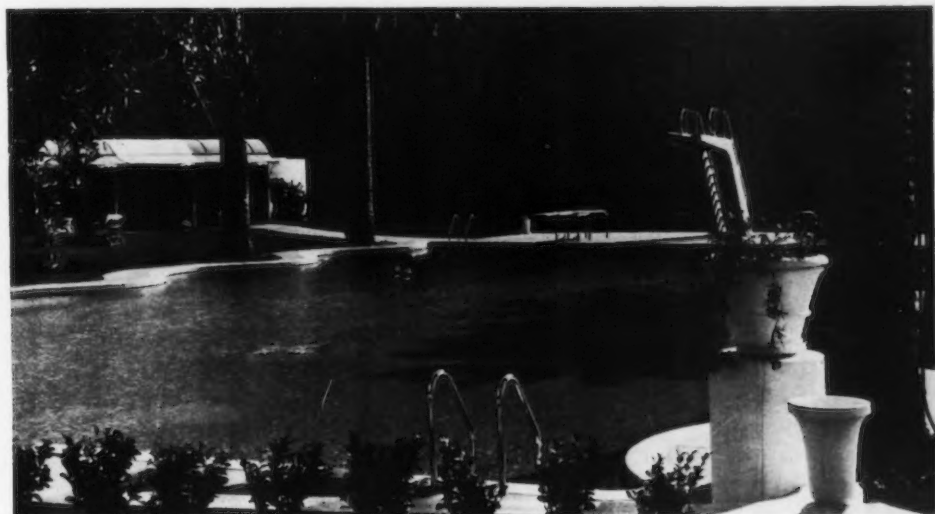
On Tuesday morning from 9:30 to 11:00 guided tours will be made at 30-minute intervals into the underground steam caves. The annual luncheon will take place at 12:30 on the terrace with an informal fashion show providing entertainment. The banquet will be held that evening. Wednesday morning we hope that as a climax to the convention activities, you will have a dip in the pool and then join us for coffee. If you don't care for a swim, please have a farewell cup of coffee with us, and a promise to meet again at the June meeting in 1953.

MRS. JEANNE WALLIS, Co-Chairman

ARROWHEAD SPRINGS HOTEL—THE CONVENTION HOTEL

Annual Meeting June 16, 17, 18, 1952

A delightful resort is Arrowhead Springs, hidden amidst the towering grandeur of the mountains under the giant Arrowhead, a natural yet mysterious formation of white sage growing amongst green on the mountainside. Bridle trails and delightful scenery create a vacation paradise less than sixty-five miles from Los Angeles. Here, high above the vineyards and orange groves, city cares drop away and man renews his vigor and joy of living.



Emerald Pool

Here by the emerald clear pool, with its scalloped edges and luxurious space, will be held the aquacade and cocktail party followed by a buffet dinner Monday evening. The pool is fed by mountain spring water, temperature controlled. There are cabanas, bar, and food service at the pool.

AVMA Annual Meeting, Atlantic City, N. J., June 23-26, 1952

The Eighty-ninth Annual Meeting of the American Veterinary Medical Association will be held at the Ambassador Hotel, Atlantic City, N. J., June 23-26, 1952.

The opening session of the convention is scheduled for 9:00 a. m., Monday, June 23d, in the Renaissance Room of the Ambassador, where registration facilities will start functioning Sunday noon, June 22d, and continue daily thereafter.

Following the opening ceremonies, formal addresses, and presentation of awards, the nomination of officers for the ensuing year will take place. A president-elect, five vice-presidents, and a treasurer are to be elected. Installation of officers will take place at a brief session Thursday noon, June 26th. This year, for the first time, there will be joint installation ceremonies for both Auxiliary and Association officers, the Auxiliary having

formally requested the board of governors that this be allowed and approval given.

The meetings of the Women's Auxiliary, including sessions of their Executive Board, House of Representatives, and other functions for women, will be held as shown in the program.

The President's Dance, with special entertainment, will be held on Wednesday evening, June 25th, at the Ambassador Hotel following the alumni dinners.

Convention registration will open Sunday noon, June 22nd, on the lobby level and lounge floor of the Ambassador, where the technical and educational exhibits will be displayed beginning at 8:30 a. m., Monday, June 23d.

A new departure, a "hospitality lounge," will be maintained by the local committee in the sun deck of the Ambassador Hotel where visiting members and their wives will be welcomed throughout the convention.

Program — Annual Convention California State Veterinary Medical Association

Conference Speakers

- M. Bellue, Weed & Seed Botanist, State Department of Agriculture, Sacramento, Calif.
 John F. Christensen, D.V.M., Ph.D., School of Veterinary Medicine, Davis, Calif.
 R. G. Collins, D.V.M., Practicing Veterinarian, Paso Robles, Calif.
 R. L. Collinson, D.V.M., Practicing Veterinarian, Turlock, Calif.
 E. M. Dobbs, D.V.M., County Livestock Department, Los Angeles, Calif.
 R. E. Duckworth, D.V.M., Asst. Director, State Department of Agriculture, Sacramento, Calif.
 Jean Flint, D.V.M., M.S., Practicing Veterinarian, Salt Lake City, Utah.
 T. J. Hage, D.V.M., School of Veterinary Medicine, Davis, Calif.
 A. C. Hollister, M.D., Chief, Acute Communicable Disease Service, State Department of Public Health, Berkeley, Calif.
 Rue Jensen, D.V.M., Professor of Pathology, School of Veterinary Medicine, Colorado Agricultural & Mechanical College, Fort Collins, Colo.
 Leon Kanegis, D.V.M., Ph.D., Head Veterinary Development Laboratories, Lederle Laboratory Division, Pearl River, N. Y.
 John W. Kendrick, D.V.M., M.S., School of Veterinary Medicine, Davis, Calif.
 L. R. Libby, D.V.M., Practicing Veterinarian, Sebastopol, Calif.
 W. Maderious, D.V.M., Practicing Veterinarian, Madera, Calif.
 Kenneth G. McKay, D.V.M., M.S., Extension Veterinarian, School of Veterinary Medicine, Davis, Calif.
 M. H. Merrill, M.D., Chief, Division of Laboratories, State Department of Public Health, Berkeley, Calif.
 R. Ormsbee, D.V.M., Practicing Veterinarian, Stockton, Calif.
 E. R. Quortrup, D.V.M., Director, Livestock Department, San Diego Co., San Diego, Calif.
 Seymour Roberts, D.V.M., Practicing Veterinarian, Richmond, Calif.
 Robert Sherwood, Manager, California Dairy Breeders' Cooperative.
 W. E. Smith, D.V.M., Practicing Veterinarian, Sanger, Calif.
 R. A. Stocking, D.V.M., Practicing Veterinarian, Los Angeles, Calif.
 C. E. Wickett, D.V.M., County Livestock Inspector, Los Angeles, Calif.
 L. C. Witcosky, Practicing Veterinarian, Fresno, Calif.

PROGRAM

JUNE 16, 1952—MONDAY
GENERAL SESSION

Morning

9:00 to 12:00—Registration and Exhibits.

Afternoon

Theatre

Chairman, ROBERT E. PHILBRICK

- 1:30—Welcome. Mayor of San Bernardino.
 1:45—Response. C. E. Wickett, President, California State Veterinary Medical Association.
 2:00—A Discussion of Some Features of Veterinary Practice in Relation to Foot-and-Mouth and Other Reportable Diseases R. E. Duckworth
 3:00—Public Health Agencies in California M. H. Merrill
 4:00—Syndrome of Right Heart Failure in Cattle Rue Jensen

Evening

Theatre

- 7:30—Regular Business Meeting of the California State Veterinary Medical Association.

• • •

PROGRAM

JUNE 17, 1952—TUESDAY
SMALL ANIMAL SESSION

Morning

Informal Dining Room

Chairman, A. MACK SCOTT

- 9:00—Film.
 9:45—Cataract Extraction in the Dog and Nature of Pigmentation of the Cornea in the Dog .. Seymour Roberts
 10:45—X-Ray as a Diagnostic Aid in Diseases of Small Animals T. J. Hage
 11:30—Visit the Exhibits.

Afternoon

Informal Dining Room

Chairman, PHILIP McCLAVE

- 1:30—Film.
 2:15—A New Technique for Intestinal Anastomosis R. A. Stocking
 3:00—Canine Distemper—Hepatitis Complex Jean Flint
 4:00—Skin Diseases of Small Animals, a Practitioner's Viewpoint L. R. Libby

Association — Arrowhead Springs Hotel, June 16, 17, 18, 1952

PROGRAM

JUNE 17, 1952—TUESDAY

LARGE ANIMAL SESSION

Morning

Theatre

Chairman, GAYLORD K. COOKE

9:00—Film—Mastitis.

9:45—Panel on Mastitis
Kenneth G. McKay, R. Ormsbee,
E. M. Dobbs, E. Quortrup

10:00—White Muscle Disease ... W. E. Smith

11:00—Visit the Exhibits.

Afternoon

Theatre

Chairman, FRED B. PULLING

1:30—Infertility and Related Problems in the
Stallion W. Maderious

2:15—Panel—Artificial Insemination in Cattle
R. L. Collinson, John W. Kendrick,
Robert Sherwood, L. C. Witcosky.

3:15—Seasonal Toxicity in Poisonous Plants
... M. Bellue and R. G. Collins

4:15—Pathology of Foot Rot in Cattle
..... Rue Jensen

Evening

7:30—Banquet, Candle Light Room.

Toastmaster: E. C. Baxter.

• • •

JUNE 18, 1952—WEDNESDAY

GENERAL SESSION

Morning

Theatre

Chairman, BEN DEAN

9:00—Recent Trends in Veterinary Chemo-
therapy Leon Kanegis

10:00—Report on American Animal Hospital
Association M. Thom

11:00—Problems Posed by the Complex Etiol-
ogy of Encephalitis in Man and Ani-
mals A. C. Hollister

Convention Committees

Program Committee: Paul D. DeLay,
Chairman, Marvin H. Harvey, H. I. Ott,
Donald Jasper, C. D. Stafford.

Local Arrangement Committee: J. L.
Geierman, R. M. Scott, J. H. Bounton,
C. J. Stillinger.

Transportation and Reservations for the June Convention

**Arrowhead Springs Hotel, San Bernardino,
June 16-17-18, 1952**

The Arrowhead Springs Hotel is ideally ap-
pointed and lends itself perfectly for our needs.
The theater, which will house the General
Sessions and Large Animal Meeting, and the
informal room for the Small Animal Meeting,
are perfectly appointed for these purposes.

The Candle Light Room for the banquet, en-
tertainment and dance is unsurpassed for
these functions.

Make your reservation early. Send it in
immediately giving the number in your party,
type of room desired and time of arrival.

Let Arrowhead Springs Hotel know what
train you are coming in on, and they will
arrange to have the hotel car pick you up at
San Bernardino.

Please make your reservation direct to Mr.
J. G. P. Malloy, Assistant Manager, Arrow-
head Springs Hotel, San Bernardino, Cali-
fornia.

Transportation

There will be no bus service from
Glendale to Arrowhead Springs Hotel
because of the prohibitive cost.

We have made arrangements with the
Southern Pacific Company to take care of
your transportation. Call:

San Francisco: Mr. E. H. Hagaman,
Douglas 2-1212, Ext. 2583.

Oakland: Mr. E. Miliken, Templebar
2-2121, Ext. 2172.

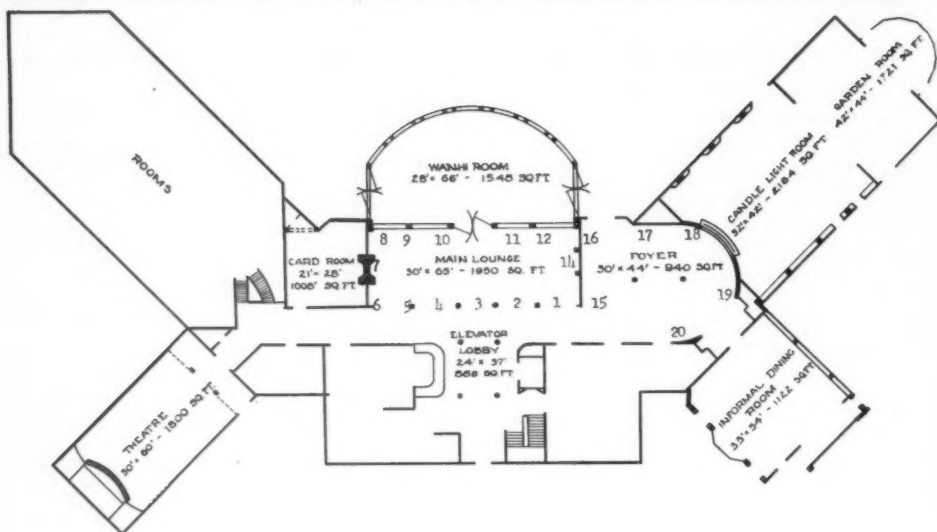
Los Angeles: Mr. M. W. Sidle, Michi-
gan 6161, Ext. 2704.

San Diego: Mr. M. L. Adler, Main 7111.

Golf Tournament

The San Bernardino Committee have
arranged for a golf tournament to be
played at the Arrowhead Golf Course,
at 2:00 p. m., Sunday, June 15th. Please
send registration to Dr. J. L. Geierman,
127 Base Line, San Bernardino. Regis-
tration for golf is \$4.00, which includes
\$3.00 green fee and \$1.00 towards the
blind bogey. There will be trophies for
Low Gross, 2nd Low Gross, Low Net and
2nd Low Net, as well as blind bogey.
Here is some fun and a little relaxation
for you.

COMMERCIAL EXHIBITS AT ARROWHEAD SPRINGS HOTEL



The commercial exhibitors have been allotted the following booths to display their products and technical developments. This attractive convention feature will be more interesting than ever and should stimulate interest in, and inspection of, these displays.

- | | |
|---------------------------------|--|
| 1. Desitin Chemical Company | 11. The Quaker Oats Company |
| 2. Parke Davis & Company | 12. Chas. Pfizer & Company, Inc. |
| 3. Lederle Laboratories | 14. Sharp & Company and Central City Chemical Consolidated |
| 4. Pitman-Moore Company | 15. California Veterinarian Supply Company |
| 5. The S. E. Massengill Company | 16. Hill Packing Company |
| 7. Medical Specialties Company | 17. Banes Laboratory |
| 8. Cutter Laboratories | 19. Doho Chemical Corporation |
| 9. Jensen-Salsbery Laboratories | 20. H. C. Burns Company, Inc. |
| 10. The Upjohn Company | |

The general sessions and large animal meetings will be held in the theatre. The small animal meetings will be set up in the informal dining room. Banquet and dancing will be in the Candle Light Room. The secretary's office will be in the card room where special meetings will be held.

Visit the Exhibits

The exhibitors have made special efforts to provide interesting and enlightening displays for those in attendance. Visit these demonstrations and acquaint yourself with exhibits and the men at the booths.

***This Is Going to Be an Outstanding Meeting
Send in Your Reservations at Once***

JUNE CONVENTION PROGRAM SPEAKERS



DR. REGINALD A. STOCKING

Dr. Reginald A. Stocking. Born Malad City, Idaho. Came to California as a professional athlete in 1931. Graduated from Texas A. & M. College in Veterinary Medicine in 1943. Did graduate work in anatomy and parasitology at Texas A. & M. Been in private practice in Los Angeles since 1943. Operates the Los Feliz Small Animal Hospital and a member of the American Animal Hospital Association; member Southern California Veterinary Medical Association, California State Veterinary Medical Association, and American Veterinary Medical Association. Was on program committee for first television program for American Animal Hospital Association. Performed bowel surgery on this program. Had a lieutenant's commission in the Army in 1942 and received an honorable discharge in 1943. Now holds captaincy in Army Reserve Corps. Member of Griffith Park Lions Club of Los Angeles, Los Angeles Athletic Club, Los Angeles Breakfast Club and other civic affairs.

DR. JOHN F. CHRISTENSEN

Dr. John F. Christensen, Ph.D., D.V.M., received his Ph.D. in protozoology in 1935 from the University of California. The next year he was instructor in zoology at Utah State Agricultural College and from 1936 until 1942 with the Zoological Division of the Bureau of Animal Industry in Beltsville, Maryland, where he did research on parasitic protozoa of cattle and sheep. Later he studied veterinary medicine at Colorado A and M and received his D.V.M. in 1946; he remained on their faculty for one year and then went into practice in Oregon and Utah primarily with large animals. In July of 1950 he joined the faculty of the School of Veterinary Medicine in Davis.



DR. SEYMOUR R. ROBERTS

Dr. Seymour R. Roberts, D.V.M., M.S.C., 1940. Born Newark, N. Y., 1917; practiced in East Orange, N. J., until 1942, and migrated to California in August of that year. Employed by the State Department of Agriculture and separated in 1944. Since that time has been in practice in Richmond where he has recently completed a new hospital. Interested in canine ophthalmology.

DR. PAUL D. DeLAY
(Program Chairman)

Dr. Paul D. DeLay received D.V.M., Ames Iowa College, 1934. Following graduation was in the employ of the U. S. Bureau of Animal Industry for one year and in 1935 joined the California Bureau of Livestock Disease Control. Served in the capacity of veterinary pathologist in the laboratory service of the Bureau from 1941 to 1945. Served in the armed forces in the medical department laboratories. Following separation from service worked at the University of California on virus diseases of poultry. In 1949, rejoined the California Bureau of Livestock Disease Control in charge of the laboratory at Sacramento.





MEMBERS OF THE DEPARTMENT OF VETERINARY SCIENCE, 1952
SCHOOL OF VETERINARY MEDICINE

J.B. Enright, D.E. Jasper, J.R. Douglas, H.S. Cameron, C.N. Stormont, J.D. Wheat, C.W. Cotterman, J.A. Howarth
R.A. Bankowski, R.F. Vetter, D.R. Cordy, W.J. Mathey, Jr., J.F. Christensen, L.M. Julian, D.G. McKercher, E.A. Rhode, Jr.
W.W. Sadler, J.W. Osebold, S.A. Peoples, G.H. Hart, A.L. Black, D.V. Zander, J.W. Kendrick
Absent: O.W. Schalm, J. Traum, W.H. Boynton, T.J. Hage, L.W. Holm, E.H. Gray, R.M. Cello, M.H. Schaffer, J.H. Woolsey, Jr.

SCHOOL OF VETERINARY MEDICINE

MEMBERS OF THE DEPARTMENT OF VETERINARY SCIENCE

- G. H. HART, V.M.D., M.D., Dean of the School of Veterinary Medicine, Professor of Veterinary Science, and Veterinarian in the Experiment Station.
- H. S. CAMERON, D.V.M., M.S., Ph.D., Professor of Veterinary Science and Veterinarian in the Experiment Station.
- S. A. PEOPLES, A.B., M.D., Professor of Comparative Pharmacology and Pharmacologist in the Experiment Station.
- O. W. SCHALM, D.V.M., M.S., Ph.D., Professor of Veterinary Science and Veterinarian in the Experiment Station.
- J. TRAUM, D.V.M., Professor of Veterinary Science and Veterinarian in the Experiment Station.
- W. H. BOYNTON, D.V.M., Professor of Veterinary Science and Veterinarian in the Experiment Station, Emeritus.
- J. F. CHRISTENSEN, M.A., Ph.D., D.V.M., Associate Professor of Veterinary Science and Associate Veterinarian in the Experiment Station.
- D. E. JASPER, D.V.M., Ph.D., Associate Professor of Veterinary Medicine and Associate Veterinarian in the Experiment Station.
- R. A. BANKOWSKI, D.V.M., M.S., Ph.D., Assistant Professor of Veterinary Science and Assistant Veterinarian in the Experiment Station.
- D. R. CORDY, D.V.M., M.S., Ph.D., Assistant Professor of Veterinary Science and Assistant Pathologist in the Experiment Station.
- J. R. DOUGLAS, Ph.D., Assistant Professor of Parasitology and Assistant Parasitologist in the Experiment Station.
- T. J. HAGE, D.V.M., M.S., Assistant Professor of Veterinary Medicine and Assistant Veterinarian in the Experiment Station.
- L. W. HOLM, Ph.D., Assistant Professor of Veterinary Medicine and Assistant Pharmacologist in the Experiment Station.
- J. A. HOWARTH, D.V.M., Ph.D., Assistant Professor of Veterinary Medicine and Assistant Veterinarian in the Experiment Station.
- D. G. MCKERCHER, D.V.M., Ph.D., Assistant Professor of Veterinary Medicine and Assistant Veterinarian in the Experiment Station.
- C. N. STORMONT, Ph.D., Assistant Professor of Veterinary Science and Assistant Serologist in the Experiment Station.
- J. D. WHEAT, D.V.M., Assistant Professor of Veterinary Science and Assistant Veterinarian in the Experiment Station.
- J. B. ENRIGHT, Ph.D., Lecturer in Veterinary Science and Specialist in the Experiment Station.
- E. H. GRAY, M.D., Lecturer in Radiology and Radiologist in the Student Health Service.
- L. M. JULIAN, D.V.M., Lecturer in Veterinary Science and Assistant Specialist in the Experiment Station.
- J. W. KENDRICK, D.V.M., M.S., Lecturer in Veterinary Science and Junior Veterinarian in the Experiment Station.
- J. W. OSEBOLD, D.V.M., M.S., Lecturer in Veterinary Science and Assistant Specialist in the Experiment Station.
- W. J. MATHEY, JR., V.M.D., Assistant Specialist in the Experiment Station.
- J. H. WOOLSEY, JR., D.V.M., Assistant Specialist in the Experiment Station.
- D. V. ZANDER, M.S., D.V.M., Assistant Specialist in the Experiment Station.
- E. W. KAY, JR., D.V.M., Junior Specialist in the Experiment Station.

UNIVERSITY OF CALIFORNIA
SCHOOL OF VETERINARY MEDICINE, CLASS OF 1952



Andrew, Aaron L.



Anthony, Robert Q.



Baker, Norman F.



G.H. Hart, Uash



Bay, Henry E.



Bryner, Clinton R.



Burger, George H.



Campbell, Frank J., Jr.



Cobble, Roy J.



Criss, Wyland S.



Davis, Allan H.



Dawson, Francis E.



Edick, Melvin



Finn, Charles M.



Gilheoly, David J.



Hill, Harry H.



Hudson, Donald D.



Hughes, Walter F.



Humphrey, Millard R.



Ingraham, Rodney N.



Kohler, Jack L.



Kraft, Walter A.



Lewis, Wilson B.



Marino, Ernest M.



McCowan, Blaine, Jr.



Milonovich, Ralph



O'Brien, John C.



Parker, Harold R.



Pecora, Paul W.



Pearl, Wendell G.



Perkins, Alan G.



Piper, Herbert N.



Placher, Eran P.



Placher, Harold D.



Pittsburgh, George H.



Richards, Barney



Saunders, Jack E.



Scott, Roger C.



Sharkey, John B.



Smart, William C.



Temple, James L.



Turner, John E.



Waller, John A.

UNIVERSITY OF CALIFORNIA
School of Veterinary Medicine
COLLEGE OF AGRICULTURE
DAVIS • CALIFORNIA

THE PRESENT SCHOOL OF VETERINARY MEDICINE, situated on the Davis campus, is new. The first class, consisting of forty-two students selected from upwards of 200 applicants, entered in the fall semester of 1948. The first graduating class (on opposite page) will receive their diplomas in June, 1952.

The curriculum as it is now constituted covers a minimum period of six years, two years preveterinary and four years in the professional curriculum. Students are required to take two years of preveterinary work, following which a number of them, commensurate with available facilities, will be selected to continue the professional study. Those admitted to the professional curriculum will be granted the degree of Bachelor of Science in the College of Agriculture upon the satisfactory completion of the first two years of work in the School of Veterinary Medicine. They then become graduate students under the jurisdiction of the Graduate Division, Northern Section, and may receive the degree of Doctor of Veterinary Medicine upon the satisfactory completion of the two years of graduate study in the School of Veterinary Medicine.

After admission to graduate standing has been approved by the Dean of the Graduate Division, the question of admission to graduate study in the School of Veterinary Medicine is within the jurisdiction of the Dean and Faculty of that School.

MANY REACH CHERISHED GOALS AT DAVIS

By DONALD E. JASPER, *Associate Professor, Veterinary Medicine*

Little more than half a century has elapsed since the California Veterinary College, which was affiliated with the University of California, was closed for lack of funds and lack of students. Of the ten graduates of this first school, only Dr. George Locke of Lockeford and Dr. Thomas Farrell of San Jose are still living. These pioneers of veterinary medicine in the State of California have seen tremendous changes within the profession. At one time it was doomed to virtual extinction by shortsighted individuals who failed to envisage the tremendous economic importance of the veterinarian to our food-producing industries or the skillful service available to, and demanded by, the thoughtful owner of pets. In contrast there is an all-time high demand for the veterinary services of today's graduate.

Problems facing the former school when it closed have not plagued the new school. In part, at least, opposite conditions have prevailed, for the latter has been adequately financed and equipped and five to seven times as many students have sought admission as could be properly instructed.

The graduation of the first class from the School of Veterinary Medicine is the culmination of a dream cherished for years by the late Dean Haring, whose consistent efforts in that direction were crowned by the erection of a splendid modern building and the establishment of the school under his deanship. Upon

Dr. Haring's retirement, Dean Hart took the helm to carry the school through the difficult organizational years to the present proud moment of our first graduation. The faculty also takes pride in these first fruits of our school, for they too have shared in the dreams and labor which bring them about.

It is upon the men themselves, however, that our interest is centered for it is they who have labored patiently for years to achieve the D.V.M. degree. It is they who, in some cases, waited years for the school to open in order to reach a long cherished ambition. It is also they who will determine by their professional skill, honorable conduct, and devoted service the real worth of the School of Veterinary Medicine. It is upon them, therefore, that we wish to dwell in order that you may know them a little better as a class, for you will soon know them as individuals.

From almost 300 applicants, 42 men were selected for the first class. All of the entering men but one, who quit after one semester to enter medical school, are now graduated. Even the vacant position was filled by a transfer from another veterinary school so a full complement of 42 carried through to the end.

All were California residents, though some had entered California since or during World War II. Nine came from Northern California or the Bay Area, nine from Southern California, 11 from Central California, and the rest

from less well-defined areas. Current plans indicate that 13 will remain in Northern California or the Bay Area, 12 will locate in Central California, five will go to the southern part of the state, about three will go out of state, and the rest are undecided.

Forty-one of the men are veterans. These include four ex-Marines, five ex-Army men, 13 from the Navy, and 18 from the Air Force. The single non-veteran was an experienced animal husbandman who had taken up residence in Davis several years previously, waiting for the veterinary school to open. About half the veterans were non-commissioned officers or enlisted men; the others held commissions ranging in rank to Lieutenant Colonel.

The average age of this first class is 31 years, the youngest being 25 and the oldest 39. Most of them, 86 per cent, are married. Seven have three children, while the others have fewer or none, bringing the class average to 1.6 children per man.

In addition to the D.V.M. all have earned a B.S. degree, nine have either a second B.S. or a B.A. in another major, and one has completed his requirements for an M.S. degree in comparative pathology while in veterinary school. Two persons completed their training with a minimum of six years of college work. An average of nearly eight years of study was required for the class as a whole; 10.5 years being the maximum for any one individual. Many of the men have had considerable additional training or hold degrees in animal science, others are skilled in other phases of agriculture, zoology, or cultural fields.

If you should ask these men what they prefer to do upon graduation, 26 would indicate a preference for a general practice, eight would confine their practice to large animals and three to small animals. The others would be non-committal. As this is written, well over half the class have made definite plans. Most of these will be associated with another veterinarian in his practice. Some will be "on-their-own." For the others, many opportunities are listed on the bulletin board. Opportunities in large animal, small animal, and general practice; partnerships, assistantships, and areas without a veterinarian; public health, city, county, state, or federal employment; other specialties, and graduate work—all appeal to members of the graduating class.

Two of the men accepted positions on the staff, one to continue toward a Ph.D. in parasitology, the other as an interne in the ambulatory clinic to gain more experience.

The road has been long and hard. Even with G. I. benefits, ingenuity and perseverance were necessary to make ends meet. Some became skilled journeymen carpenters; some worked in scientific or medical laboratories; some worked for veterinarians and some for farmers; some worked for the Atomic Energy

Commission, and some found work wherever they could. The Kern County Land and Cattle Company has furnished two scholarships which were exceedingly helpful. Other scholarships are urgently needed for worthy students.

Much credit must be given to the wives of these men, for many worked in offices, laboratories, or at home, to supplement the meager family incomes. Encouragement and comfort from an understanding wife when things were rough must often have helped a great deal. Since they shared so greatly in the labor of achievement, perhaps they, most of all, will enjoy the flush of victory as they launch into their new role as the wives of veterinarians. To them, hearty recognition is given for a task well done.

Probably no other class will be so well known individually to the faculty, for student and teacher alike have had to adjust to each new course as it came along. For them, each course was taught for the first time. We are grateful for their patience and mature judgment, which helped so much in establishing sound precedents. Succeeding classes now reap the benefits of this trial run.

In spite of occasional weaknesses in presentation, we as faculty members have great confidence in our first product. Our expectations are high. As in the case of all new graduates there is yet much to be learned in the field. The class of 1952 will quickly grasp these things and continue to build upon the basic education received at the University. These graduating seniors are our major contribution to veterinary medicine for 1952. "By their works ye shall know them" and know us, too. We trust we have not failed.

National Scientific Register to Begin Survey of Veterinarians

The American Veterinary Medical Association announced on March 1st, that the National Security Resources Board and the U. S. Office of Education—which already have assembled data on 150,000 individuals in some of the country's top-ranking scientific fields—will carry on a classification survey of all United States veterinarians this spring and summer in cooperation with the AVMA.

In announcing the project, Dr. C. D. Van Houweling, AVMA assistant executive secretary, emphasized that it will be to the advantage of every veterinarian to cooperate in the survey, and he urged that prompt attention be given to filling out and returning the survey questionnaires. Non-members as well as members of the AVMA will be included, he said. It is expected that all veterinarians will have received the questionnaire by mid-summer.

Equitable Compensation for Veterinarians

We are printing herewith two actions taken by the American Farm Bureau Federation Board of Directors and the California Farm Bureau Federation Board of Directors, which we believe will be of interest to the Committee on Equitable Compensation and the membership of the California State Veterinary Association.

Resolution presented before the CFBF Board of Directors April 23, 1952:

Salary Schedule of State Veterinarians

We recommend that the State Personnel Board give very serious consideration to the revision of the present salary and promotion schedule for veterinarians in the employ of the State Department of Agriculture. The competition for qualified and experienced veterinarians in private industry and practice is such that vacancies in the Division of Animal Industry of the State Department of Agriculture are continually occurring, and it is difficult to attract qualified or experienced veterinarians to fill these positions under the present salary and promotion schedule of the Department of Agriculture.

Recommendation of the AFBF National Livestock Advisory Committee May 31-April 1, 1952, as approved by the Board:

B.A.I. Veterinary Personnel

We recommend removal of veterinarians from the "Classification Act of 1949" as was done for physicians and dentists after World War II when the Veterans' Administration had to have a means whereby they could recruit and attract professional personnel so as to make possible a starting salary which would attract adequate numbers of young veterinarians.

(The Board amended the above recommendation to read "that the American Farm Bureau Federation seek authority for the B.A.I. to employ veterinarians at beginning salaries under Civil Service classifications GS-8 and GS-9, in addition to GS-7, if necessary, to obtain qualified personnel.")

Partnership Dissolved

Effective May 1, 1952, the partnership of Dr. R. L. Collinson and Dr. I. N. Bohlender of Turlock was dissolved. Dr. Bohlender has purchased Dr. Collinson's interests in the Veterinary Medical Center and will continue the operation of the same as sole owner and operator.

Dr. Collinson will devote his activities to the management of the Western Improved Stud Service, distributor for the Curtiss Candy Company Farms Improved Stud Service. He will confine his practice mainly to sterility and general herd problems of cattle. His offices will be located in the Veterinary Medical Center Building, So. 99 Highway, Turlock.

Foreign Abstracts

MAHAFFEY, L. W. (1950): "Studies of fertility in the Thoroughbred Mare." *The Australian Veterinary Journal*, Vol. 26, No. 11, pages 295-300.

The article deals with the early post-partum oestrus, commonly referred to as "foal heat," peculiar to equidae.

The author claims, that in large groups of mares there cannot be an expected fertility rate of much over 50 per cent at the "foal heat." In some of the local studs with a schedule of mating on one particular day after foaling, the fertility rates of 30 per cent, 20 per cent and less are of common occurrence.

Mahaffey points out that it is essential to treat mares strictly as individuals, because of the individual variations of heat and ovulation. By means of ovarian palpation the fertility rate at the first post-parturition heat can be raised to about 70 per cent.

State Rabies Advisory Council Proposes State Legislation

Eleven organizations met recently with the State Department of Public Health to form a "State-wide Rabies Advisory Council" which will help develop and propose mutually agreeable state legislation for the control of rabies.

Need for such a law has been felt increasingly for several years by state and local health departments. These public health authorities have taken the initiative in the matter, and for the past year the State Department of Public Health has been working with agricultural, dog breeding and humane groups to encourage their cooperation in planning and supporting the legislation believed necessary for adequate control of rabies in California.

The control concepts guiding present thinking have been approved by the California Medical Association, California State Veterinary Medical Association, and the California Conference of Local Health Officers. A law expressing these concepts would:

1. Require local jurisdictions to provide for a dog and rabies control program, and
2. Require that these local control programs contain as minimum provisions:
 - a. Licensing or registration of all dogs.
 - b. Maintenance of an adequate pound and stray dog pickup system.
 - c. Vaccination of all dogs allowed to run at large.
 - d. A public education program.

Participants in the recent meeting discussed provisions for legislation which might best meet the interests of animal industry, health authorities, organizations concerned with rabies-subject animals, and individual pet owners.

It is hoped that a final draft may be submitted to the 1953 State Legislature.

Correction of Acute Primary Glaucoma in the Dog by Iridencleisis*

By JOHN T. TURVER, B.S.†

Glaucoma is a disease of the eye characterized by increased intraocular tension commonly causing impaired vision ranging from slight abnormalities to absolute blindness. It may be of two types: Primary glaucoma acute or chronic, and secondary glaucoma which results from pre-existing diseases of the eye.

The initial causes of primary glaucoma are not known. Advanced age, vasomotor instability, heredity, blockage of the canal of Schlemm, a difference between the osmotic pressure of the blood and that of the intraocular fluids, and arteriosclerosis are but a few of the theories advanced in human medicine.

Regardless of the cause, the primary object of treatment is to reduce the intraocular tension to normal. This may be done with one of the miotics such as physostigmine, neostigmine, pilocarpine and di-isopropyl fluorophosphate. Usually the relief afforded by these drugs is only temporary. The final treatment of choice, regardless of the type, stage, or age, is usually surgical. There is considerable disagreement as to which type of operation should be done but the desired result is always the same, i.e., lowered tension and preservation of vision.

Surgery is not without danger and several situations may arise in which the eye may be lost, such as, through hemorrhage, infection or chronic uveitis. There is also the possibility that an opacity of the lens may develop in a certain percentage of cases, but the danger of permitting the increased tension to persist is much greater than that of having to deal with a cataract at a later date.

The case for discussion was a cocker spaniel, male, six years of age, with a history of acute onset in the right eye. Upon examination it was found that there was severe lacrimation, photophobia, and pain as evidenced by the fact that the dog held his head somewhat to one side. The conjunctival vessels were injected, the cornea appeared steamy and hazy, the anterior chamber was very shallow with the iris almost in contact with the cornea and somewhat injected, and the pupil was dilated, fixed, and rather green. Upon palpation, the right eyeball was very painful and tense as compared to the left eye. A diagnosis of acute primary glaucoma was made.

The animal was hospitalized and treatment was started immediately. Two drops of a 2 per cent solution of eserine sulfate was put into the eye. At the end of one hour miosis

was complete and at the end of three hours the eye was noticeably better. Miosis was maintained during the following three days by instilling a drop of 1 per cent eserine into the eye three times daily. During this time the inflammation receded, the intraocular tension was normal and the lacrimation subsided. On the fourth day the dog was discharged, and the owner was given a 0.25 per cent solution of eserine with instructions to instill a drop into the eye three times a day for the remainder of the week. After two days the patient was returned with a glaucomatous process advanced almost to the previous pre-treatment stage. Surgery was then decided upon as the only therapy likely to save vision in the affected eye and effect a permanent cure. Since severe acute glaucoma can result in permanent blindness because of pressure on the optic disc in as little as 6 to 8 hours if not promptly relieved, no time was lost preparing the animal for surgery. The pupil was constricted as before with physostigmine. Polysporin* (Polymixin B and Bacitracin) ophthalmic ointment was applied in an effort to reduce contaminants.

Under pentothal sodium anesthesia the eyelids and surrounding area were cleaned with soap and water, and the area was draped leaving only the eye exposed. An eye speculum was applied and a suture was placed through the belly of the superior rectus muscle, thus giving the surgeon greater control over the eye. A conjunctival flap involving the whole upper third of the eye, and about 4 mm. wide was then dissected to the limbus (Fig. 1). This was drawn forward to expose the corneoscleral junction. The point of a lance keratome was placed at the 12 o'clock position and pushed gently into the anterior chamber (Fig. 2). Care was taken not to engage the iris which may be pushed forward. The fluid from the anterior chamber was allowed to escape slowly in order to avoid prolapse of the iris, after which the incision was enlarged to about 8 mm., to facilitate the introduction of iris forceps into the anterior chamber.

By grasping the iris at the pupillary margin it was drawn upward and out of the wound (Fig. 3). A second iris forceps was placed next to the first and a cut was made between the two forceps parallel to the radiation fibers and down to the base of the iris. Tension was then relaxed somewhat on the iris, allowing it to drop back far enough so that only the cut ends held in the forceps were above the incision. These cut ends were then pulled into the corners of the incision and tightly wedged there. By this means a permanent opening from the anterior chamber was established, the iris acting as a wick.

*Burroughs-Wellcome Pharmaceutical Company.

†Senior student, School of Veterinary Medicine, University of California.

*Presented as a clinic conference report at the School of Veterinary Medicine on March 7, 1952. The treatment and surgery described herein were under the supervision of John Turver, D.V.M., in his hospital in Oakland, California.

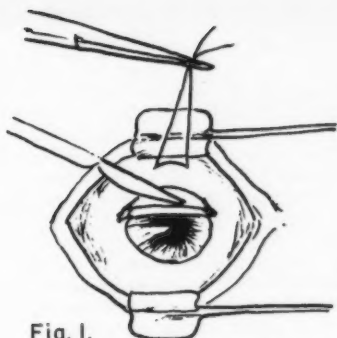


Fig. 1.
Conjunctival flap dissected back.

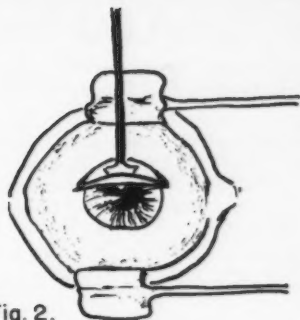


Fig. 2.
Incision with Keratome.

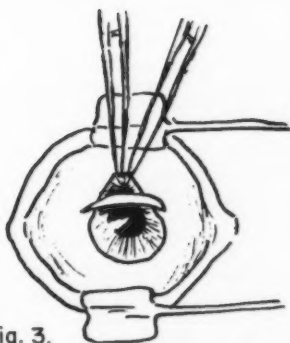


Fig. 3.
Iris drawn through incision.

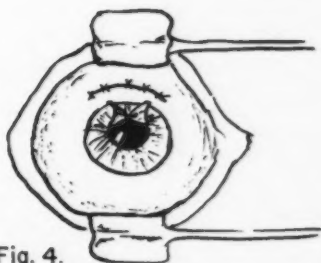


Fig. 4.
Surgery completed.

The conjunctival flap was sutured back in place with five simple interrupted sutures of 7-0 black silk (Fig. 4). Before the final suture was tied, sterile saline was injected into the anterior chamber to restore the normal contour of the cornea. The suture in the superior rectus muscle was removed and polysporin ophthalmic ointment and atropine were applied. Atropine was used to keep the cut edges of the iris away from the lens, thereby preventing adhesion. The lid was closed, a cotton pad was placed over the eye, overlaid by a gauze pad, and an aluminum eye shield covering both was taped securely to the head. The dog was then given 300,000 units procaine penicillin in oil intramuscularly immediately after surgery and for the succeeding two days.

The eye was dressed daily for seven days at which time bandaging was discontinued and sutures removed. The eye was healing nicely, a small bleb near the limbus showing that the excess anterior fluid was being carried off and absorbed by the conjunctival vessels.

During the past three months following surgery there has been no recurrence and the animal's sight has remained good.

Conclusion

Iridencleisis is a practical procedure for treatment of intractable cases of glaucoma in the dog providing surgery is performed before pressure has irreversibly damaged the eye.

References

- Wiener, M.: "Surgery of the Eye," 2d ed. (1949), 88-112. Grune & Stratton Co., N. Y.
- Jourdan, R. H.: "Pathogenesis of Canine Glaucoma." *Jour. Amer. Vet. Med. Assoc.*, 117 (1950), 419-422.
- Magrane, W. G.: "Some Aspects of Canine Ophthalmology." *Jour. Amer. Vet. Med. Assoc.*, 116 (1950), 206-208.
- French, H.: *Index of Differential Diagnosis*, 6th ed. (1945), 299. Williams and Wilkins, Baltimore, Md.
- Merck Manual, 8th ed. (1950), 433-436. Merck & Co., Rahway, N. Y.
- Kirk, H.: *Index of Diagnosis* (1949), 214. Williams and Wilkins Co., Baltimore, Md.
- Cowdry, E. V.: *A Textbook of Histology*, 3d ed. (1946), 250-259. Lea and Febiger, Philadelphia.
- Kimber, D. C., Gray, C. E., and Stackpole, C. E., 11th ed. (1942), 653. MacMillan Co., N. Y.

Livestock Diseases Reported

J. E. STUART

*Bureau of Livestock Disease Control Division of
Animal Industry, State Department of Agriculture,
Sacramento, California*

Tabulation of diseases reported to the State Bureau of Livestock Disease Control during the period January to April inclusive, 1952, also a Summary of the reports of the Previous Eight Months.

	Jan.-Apr. Incl., 1952			Previous 8 Months May-Dec., Incl., 1951		
	North	Central	South	North	Central	South
Actinomycosis						1
Anaplasmosis	3	1	4	17	4	10
Anthrax, cattle	2	1		3	13	
hogs	1				2	
sheep					1	
Bovine bac. hemoglobinuria	1		1	3	2	1
Bovine trichomoniasis				1		
Caseous lymphadenitis				1		
Coccidioid granuloma		8			5	
Coccidiosis, cattle	1			1		
sheep	1			2	3	
Contagious ecthyma, sheep				6		
Cysticercus, bovis		8	17	3	13	23
cellulosa					2	
Equine encephalomyelitis				34	31	38
Foot rot, cattle	1				1	1
sheep	1	2		4		
Hog cholera	4	5	3	12	19	2
Inf. Atrophic rhinitis, hogs		2		3	2	
Infectious keratitis, cattle				1		
sheep				1		
Infectious pneumonia, calves				1		
Johne's disease		1			1	1
Leptospirosis, cattle	1	1		5	4	4
Listerellosis, sheep	2		1			
Malignant edema, cattle				3	4	1
sheep				1		
Myxotic stomatitis	5	4			6	
Paratyphoid infection, sheep				3		1
cattle			1			1
hogs	1					
Swine erysipelas	1	4	1	3	5	1
Vibrio fetus, cattle	1	1	1	1	1	2
sheep	1					
Vesicular exanthema swine	5	24	16	0	22	3

Progress in Brucellosis Control

J. E. STUART

The California program for control of brucellosis based on vaccination of calves continues to show progress and is being favorably received by the cattle owners of the state.

The contract practicing veterinarians who vaccinate nearly all of the calves are interested in the program and are striving to improve and organize their calf vaccination work.

The millionth calf was vaccinated on February 2, 1952, just four years after the program started. During the month of April, 1952, a total of 45,448 calves were vaccinated, which was the largest number of calves vaccinated in any single month. It exceeded the previous highest month by nearly 5500 calves.

According to the law, the vaccination of female dairy calves is compulsory but vaccination of male dairy calves and beef calves is voluntary on request of owners. The vaccination of the small lots, one and two calves, has been a problem but better coverage is gradually being made.

The beef cattle owners are showing increasing interest as each month additional owners are having their calves vaccinated. The records indicate that of the total figure to date, approximately 34 per cent are beef calves.

Many dairy owners feel that the protection given their herds by resistance developed from calf vaccination is the safe and proper procedure in a plan of brucellosis control.

Attention to Conditions Resembling Foot-and-Mouth Disease

Recent outbreaks, the last on April 28th, of foot-and-mouth disease in two herds outside the original quarantine area around Regina, Saskatchewan, Canada, but still in the buffer zone, has emphasized the need for being on the look-out for this disease. Conditions showing resemblance to foot-and-mouth disease should be reported to the Division of Animal Industry, Sacramento, or to the nearest district office of the division. Many cases of that kind already have been investigated and each one reported will receive prompt attention to determine the nature of the trouble. Precautionary measures in this respect are very important at this time.

Applicants

Thomas B. Eville, Fresno. Vouchers: A. R. Inman, Wm. K. Riddell.

Harold Burroughs, Los Angeles. Vouchers: Rollin R. Smith, Philip L. McClave.

Clayton Stephens, Florida. Vouchers: J. V. Nevitt, C. R. Dean.

Don L. Caswell. Vouchers: Edward J. Mahler, Albert C. Emminger.

Correction: Robert Cotton, Los Angeles; Vouchers Leonard I. Beller, W. J. Zontine, should be Robert Cotten.

Directory and Report of Board of Examiners in Veterinary Medicine

The third edition of the directory and report, Board of Examiners in Veterinary Medicine, is out. Congratulations to Dr. Gaylord K. Cooke, Secretary of the Board, for his very fine piece of work.

This book has become very much in use in the past two years and is indispensable to this office. It is widely in use by the pharmaceutical and laboratory houses. They have made it a must with their publicity and public relations departments, which is an indication of the importance to which they hold the California Veterinarians in their field of sales and promotion.

Board of Examiners in Veterinary Medicine

President—Ernest C. Baxter, 816 South San Pedro Street, Los Angeles.

Vice-President—Eugene C. Jones, 50 59th Place, Long Beach.

Secretary—Gaylord K. Cooke, Department of Public Health, Berkeley.

R. A. Ball, McHenry and Orangeburg Avenue, Modesto.

Ernest H. Houchin, 40 W. Santa Clara, Ventura.

Investigator—James M. Sims, Jr., 1030 N Street, Sacramento, California.

Information Bulletin

We are printing herewith a letter from Dr. Cameron, School of Veterinary Medicine, Davis, and we quote as follows:

"Information Bulletin, Volume III, No. I, from the National Advisory Committee to the Selective Service System to the sub-committees contains the following statement that will be of interest to veterinarians.

"III—NEW VETERINARIAN GRADUATES. There will be, this spring, and in subsequent years numbers of individuals receiving the Degree of Doctor of Veterinary Medicine far beyond the needs of the Services for these individuals. Advice to the local boards on such special registrants should be based upon the essentiality of the work they undertake in its relationship to the national health, safety or interest.

"Those veterinarians who enter small animal practice will not be considered essential to the national health, safety or interest. Neither will those be considered who enter large animal work to replace another veterinarian so that the latter may engage in small animal practice."

State Board Examination

The Board of Examiners in Veterinary Medicine will hold the State Board Examination in the Mirror Building, 145 So. Spring Street, Los Angeles, at 9 o'clock, June 23-24-25, 1952.

OPPORTUNITIES

Position Wanted

Position wanted as Associate Veterinarian by California licensed veterinarian, 47 years old and with 13 years' experience in his own practice. Box A, care of THE CALIFORNIA VETERINARIAN.

* * *

Position wanted by experienced veterinarian doing relief work. Box B, care of THE CALIFORNIA VETERINARIAN.

* * *

Veterinarian interested in small or mixed animal practice. Would consider lease with option to buy or eventual partnership. Prefer Central or Southern California. Write care Box "E", THE CALIFORNIA VETERINARIAN.

* * *

Position as Associate Veterinarian by California licensed veterinarian. 47 years old and with 13 years' experience in his own mixed practice. Box F., THE CALIFORNIA VETERINARIAN.

Veterinarian Wanted

Aggressive small animal specialist. Salary, later lease or sell. Real chance for right kind of graduate. Small animal surgery and clinic important. In San Fernando Valley, north of Hollywood. Box C, care of THE CALIFORNIA VETERINARIAN.

* * *

Small animal hospital in expanding Southern Coastal community. Present accommodations for 35 pets. Two furnished apartments. About \$7,500 to handle. Good terms. No lease considered. Contact Box D, care of THE CALIFORNIA VETERINARIAN.

Dr. R. E. Duckworth Reports On Canada Aftosa Situation

Canadian government animal disease control officials are doing an excellent job in controlling the foot-and-mouth disease which appeared on a ranch near Regina, on Feb. 24th, according to Dr. R. E. Duckworth, Assistant State Director of Agriculture, upon his return April 10 from an inspection trip to the area where the disease was discovered.

Dr. Duckworth reported to State Director of Agriculture A. A. Brock that "the Canadians have done an excellent job of getting the disease under control in the face of nearly unsurmountable winter hardships. Right now it appears as though the disease has been eradicated. However, it would surprise no one if the trouble were to break out again in one or two additional places in the vicinity of Regina, but that prospect is not likely at present."

To the California Veterinarians

For Your Protection

Take Time to Look into This Group Insurance

This program was designed for you and the value in savings cannot be duplicated. You will save up to 100% and more in premiums

**ACCIDENT
AND
SICKNESS**

**HOSPITAL EXPENSE
MISCELLANEOUS HOSPITAL EXPENSE
SURGICAL OPERATION EXPENSE**

PROFESSIONAL GROUP ACCIDENT & SICKNESS POLICY

For Members of the California State Veterinary Medical Association

**MONTHLY ACCIDENT
INDEMNITY \$200⁰⁰**
(TOTAL DISABILITY)

**MONTHLY ACCIDENT
INDEMNITY \$100⁰⁰**
(PARTIAL DISABILITY)

**MONTHLY SICKNESS
INDEMNITY \$200⁰⁰**
(TOTAL DISABILITY)

**ACCIDENTAL DEATH
INDEMNITY \$1,000⁰⁰**

**Indemnity for Dismember-
ment and Loss of Sight
by Accident**

For LOSS of Both Hands, or Both Feet,
or One Hand and One Foot, **\$10,000⁰⁰**
or Entire Sight of Both Eyes

For LOSS of One Hand or One
Foot, or Entire Sight of one Eye **\$5,000⁰⁰**

For LOSS of Thumb and Index
Finger of Either Hand **\$2,500⁰⁰**

HOSPITAL AND SURGICAL BENEFITS

Hospital Residence Expense (maximum 70 days any one disability) Per Day \$8.00
Miscellaneous Hospital Expense (drugs, anaesthetic, X-ray, etc.) \$100.00
Surgical Operation Expense (based on schedule of operations) \$7.50 to \$225.00

SEMI-ANNUAL PREMIUMS

Ages thru 49—\$45.75

Ages 50 thru 59—\$52.20

Ages 60 to 65—\$61.88

Do Not Wait for Sickness or an Accident to Overtake You.

DO IT NOW

Approved and Recommended by the California State Veterinary Medical Association.

All inquiries should be addressed to Mr. Charles S. Travers, Executive Secretary, California State Veterinary Medical Association, 3004 16th Street, San Francisco, or direct to the

NATIONAL CASUALTY COMPANY

605 MARKET STREET
SAN FRANCISCO • EXbrook 2-2440

both

*easier to prepare
and easier to use . . .
in clinic or field*

**Pfizer antibiotics for greater
effectiveness and convenience**

Combiotic* P-S

Penicillin and dihydroStreptomycin

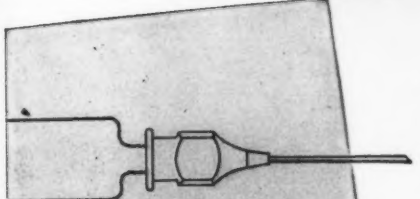
in a single injection

Synergism between penicillin and streptomycin enhances the activity of both antibiotics. Provides a more rapid response in the treatment of certain mixed infections and such conditions as pneumonia, peritonitis, canine leptospirosis, urinary infections, pyometra, endometritis, abscesses and many others.


Pronapen*

in a single injection

Both prompt-action aqueous penicillin and prolonged-action repository penicillin for the treatment of infections of the respiratory and urinary systems, staphylococcal mastitis, erysipelas, anthrax, blackleg, and other infections caused by penicillin-sensitive organisms.



each 3 cc. vial provides
when reconstituted:
300,000 units procaine
penicillin G
100,000 units buffered
sodium penicillin G
1 Gm. dihydrostreptomycin
(as the sulfate)



each 1 cc. injection provides:
300,000 units crystalline
procaine penicillin G
100,000 units buffered
crystalline sodium
penicillin G
in 10 cc. multiple dose vials

PFIZER antibiotics for veterinary medicine include 12 special forms of Terramycin, penicillin, streptomycin and dihydrostreptomycin, for the treatment of the widest range of infections in animals.

Available through ethical distributors

*TRADEMARK

ANTIBIOTIC DIVISION

Pfizer

ELIAS PFIZER & CO., INC., BROOKLYN 6, N.Y.

ENCEPHALOMYELITIS



In view of the fact that encephalomyelitis is well established in the United States, and that vaccination is the only known effective means of prevention, all horses should be vaccinated annually in the spring or early summer months, before serious outbreaks occur.

It is impossible to predict future outbreaks of equine encephalomyelitis; yet Lockhart has never failed the profession and has always had adequate supplies of these vaccines available in event of such outbreaks.

Encephalomyelitis Vaccine (Lockhart) is available as Eastern, Western, and Bivalent in single and bulk packages, to fit any need of the discriminating veterinarian.

ASHE LOCKHART, INC.

Producers of Better Biologicals for Graduate Veterinarians

800 Woodswether Road

Kansas City 6, Missouri

*For Maximum Effectiveness
and Greatest Economy
when a Parenteral Sulfonamide
is Indicated—*

SULMET*

Sodium Sulfamethazine SOLUTION INJECTABLE **25%** W/V

Lederle

Permanently clear—pyrogen-free—sterility-tested—To be dispensed by or on the prescription of the veterinarian. Maximum effectiveness against a wide range of species of pathogens, minimum toxicity, high blood concentrations sustained by administration at 24-hour intervals, and great economy per animal treated, have established SULMET Sulfamethazine as the ideal sulfonamide for medication of diseases caused by sulfonamide-susceptible microorganisms in all animal species.

SULMET Sodium Sulfamethazine SOLUTION INJECTABLE is a highly professional product, equal or superior in effectiveness to any sulfonamide or combination of sulfonamides, that gives equal or superior results when administered at the same dosage in grains per pound of body weight recommended for any of the other sulfonamides. In addition, because SULMET SOLUTION INJECTABLE contains more drug per cc. (approximately 4 grains), it provides medication that quickly overcomes infection at low cost.

SULMET Sulfamethazine is also available as OBLETS*, TABLETS, POWDER and TINTED EMULSION.

Packages—0.25 Gm. per cc.—Vials of 250 cc. and 500 cc.

*Reg. U. S. Pat. Off.

LEDERLE LABORATORIES DIVISION

AMERICAN Cyanamid COMPANY 30 Rockefeller Plaza, New York 20, N. Y.

TOYTABS

simplify THE MEDICATION OF
"TOYS," PUPPIES AND KITTENS



A Practical
Solution to the
Problem of
Suitable Size and
Correct Dosage

facts about TOYTABS

1. Toytabs supply a long-time need for the administration of suitable drug combinations to very small or very young pets.
2. Toytabs give the confidence of correct dosing and eliminate the uncertainty of adapting tablets intended for other purposes.
3. Toytabs are convenient, economical and are available in nine well balanced formulas . . . formulas which supply the usual demands of pet animal practice.
4. Toytabs are excellent dispensing items.

TOYTABS available:

In Bottles of 500

- Cardac*—cardiac stimulant
- Cathartic*—cholagogue
- Enzymin—digestant
- Hemogen*—hematinic tonic
- Phenobarbital— $\frac{1}{4}$ gr. sedative
- Quykemf*—cold remedy
- Sulfa Combined— $\frac{1}{2}$ gr., microbicide
- Triple A and N*—arsenic tonic
- Vermi*—vermicide

*Coated

HAVER-GLOVER LABORATORIES

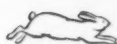
Kansas City, Missouri

Sharpe and Company, 460 N. Robertson Ave., Los Angeles
Central City Chemical Co., 617 Howard St., San Francisco

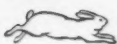


**ARE YOU GETTING ALL THESE ADVANTAGES
IN YOUR HOG-CHOLERA VACCINATIONS?**

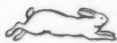
Check here



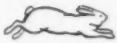
One injection treatment confers solid immunity without serum



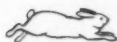
Cannot infect the premises with hog-cholera



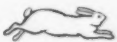
Reduces the labor involved in immunizing herds



Cannot introduce other diseases to swine



Reduces the cost of the required biological products



Protects swine of all ages



Swivax*

**HOG CHOLERA
VACCINE**



MODIFIED LIVE VIRUS—RABBIT ORIGIN—VACUUM DRIED

In 5 dose—25 dose and 50 dose packages
Licensed under U. S. Patent 2518978



PITMAN—MOORE COMPANY
Division of ALLIED LABORATORIES, INC.

* Trade Mark

Within this organization originated the policy of Sales to Graduate Veterinarians ONLY

POSTMASTER—Return postage guaranteed by California State Veterinary Medical Assn., 3004 16th Street, San Francisco 3, California. If forwarded to a new address notify sender on Form 3547. Postage for notice guaranteed.

Sec. 34.66, P.L. & L.
U. S. POSTAGE

PAID

SAN FRANCISCO, CALIF.
PERMIT No. 1772



this poor guy needs Spastyl!

Poor old Fido, over here at the right, represents those thousands and thousands of nervous family pets with "touchy" stomachs. He *does* need *Spastyl*!

Atropine or belladonna derivatives might quiet him down temporarily . . . but the undesirable side effects are often worse than the upset itself! Here's our best answer: SPASTYL (spas-till). And it's an entirely new antispasmodic (with phenobarbital) that gives you the benefits of atropine *without* atropine's undesirable side effects!

Spastyl (10 mg.) with Phenobarbital ($\frac{1}{4}$ gr.), given perorally, curbs hyperperistalsis, nausea, vomiting, and intestinal tenesmus. You will find it's the right combination for car sickness and pyloric stenosis.

The average dosage schedule is a single *Spastyl* capsule twice daily for dogs up to 20 pounds body weight . . . one capsule 2 to 4 times daily for larger animals.

Spastyl is available now from your Jen-Sal branch or distributor in bottles of 100 attractive blue and white capsules. Put *Spastyl* on your next order.

SPASTYL

Jensen-Salsbery California Depot
Box 2945, Terminal Annex, Los Angeles 54, Calif.
Phone Mutual 2725

